

**WHAT IS CLAIMED IS:**

1. A servo signal inspecting apparatus to inspect a recorded state of a servo signal with a reproducing head with a smaller width than a width of a servo track, the apparatus comprising:

5 a magnetic tape driving unit running a magnetic tape;

a reproducing head inspecting a servo signal recorded on said magnetic tape; and

10 a head controlling unit controlling said reproducing head so as to vibrate in a range of width of said servo track in a width direction of said magnetic tape.

2. A servo signal inspecting apparatus according to claim 1, wherein a plurality of said reproducing heads are provided at a predetermined interval for one said servo track; and

15 wherein said plurality of reproducing heads are made to vibrate all together in a range of width of said servo track by said head controlling unit.

3. A servo signal inspecting apparatus according to claim 1, which comprises a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

20 4. A servo signal inspecting apparatus according to claim 2, which comprises a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

5. A servo signal inspecting system comprising:

25 a servo signal inspecting apparatus according to claim 1; and

an analysis unit analyzing whether or not defects exist in servo signals

based on signals read with a reproducing head.

6. A servo signal inspecting system comprising:

a servo signal inspecting apparatus according to claim 2; and

an analysis unit analyzing whether or not defects exist in servo signals

5 based on signals read with a reproducing head.

7. A servo signal inspecting system comprising:

a servo signal inspecting apparatus according to claim 3; and

an analysis unit analyzing whether or not defects exist in servo signals

based on signals read with a reproducing head.

10 8. A servo signal inspecting system comprising:

a servo signal inspecting apparatus according to claim 4; and

an analysis unit analyzing whether or not defects exist in servo signals

based on signals read with a reproducing head.

9. A servo signal inspecting system according to claim 5, wherein said

15 analysis unit memorizes data obtained from normally recorded servo signals

as standard data in advance and compares the standard data with data in

inspection, thereby finding defects of servo signals.

10. A servo signal inspecting system according to claim 6, wherein said  
analysis unit memorizes data obtained from normally recorded servo signals  
as standard data in advance and compares the standard data with data in  
20 inspection, thereby finding defects of servo signals.

11. A servo signal inspecting system according to claim 7, wherein said  
analysis unit memorizes data obtained from normally recorded servo signals  
as standard data in advance and compares the standard data with data in  
25 inspection, thereby finding defects of servo signals.

12. A servo signal inspecting system according to claim 8, wherein said

analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals.

13. A servo signal inspecting method to inspect a recorded state of servo signals with a reproducing head with a smaller width than a width of a servo track, the method comprising the steps of:

running a magnetic tape and vibrating said reproducing head in a range of width of said servo track in a width direction of said magnetic tape, and inspecting servo signals recorded on said magnetic tape.

14. A servo signal inspecting method according to claim 13, which comprises an analyzing step to analyze whether or not defects exist in servo signals based on signals read with said reproducing head.

15. A servo signal inspecting method according to claim 13, the method comprising the steps of:

a standard data recording step memorizing data obtained from normally recorded servo signals as standard data in advance; and  
a comparing step comparing the standard data with data in inspection.